

Testimony to U.S. Environmental Protection Agency
Listening Session regarding Aging Initiative: Protecting the Health of Older Americans
Iowa City, Iowa
April 15, 2003

My name is Ann Stromquist. I am the coordinator of the Keokuk County Rural Health Study, a population-based, prospective study of the effects of environmental exposures on the health of a random sample of residents living in one Iowa county. The study is funded by NIOSH, the National Institute for Occupational Safety and Health, and is scheduled to continue for 20 years.

The county we are studying is entirely rural and is typical of other rural Iowa counties, with 87% of its land in farmland. Principal crops include corn, soybeans, oats and hay, and livestock are primarily hogs, cattle, and sheep. In 1900 there were almost 3,000 farms in the county, averaging 124 acres per farm. By 1997, the number of farms had decreased to 968 and the average size had increased to 334 acres per farm. The vast majority of these farms (82%) are individually or family-operated, but this percentage is decreasing as the percentage of partnership and corporation-owned farms increases. An increasing number of farm operators spend time working off the farm, from 41% in 1992 to 49% in 1997. In 1992, 26% of farm operators worked **200 days or more** off the farm; by 1997, that percentage had increased to 35%. Per capita income in 1990 was \$15,373, and 15% of the families with children met the poverty level.

How does this relate to the topic we are here to address today? Well, many farmers don't retire. That means that many of our farmers are elderly and are therefore included in the statistics that I have just cited. Eighty-nine percent of our elderly sample have lived on a farm and 82% have worked on a farm in their lifetime. A bit more about

the elderly in the state of Iowa. In 1940, only 9% of the population of Iowa was age 65 or over. In 2000, almost 15% are 65 or over. For the first time in Iowa, in the 1990 census the count of Iowans 75 or older exceeded that under the age of 5. And that trend has continued. By 2000, 7 Iowa counties had more females 85 or older than 4 or younger.

While many continue working on the farm well into old age, others move out of farming because of poor health. When we began our study, we asked people in the county what concerns they had about their health and the environment they lived and worked in. . . . Cancer . . . respiratory disease. . . allergies. . . heart disease. . . injuries. . . arthritis. . . clean drinking water. . . clean air. . . these are a few that they mentioned

We plan to study 1,000 families over a 20 year period, collecting data about every 4-5 years. Our protocol includes a medical screening, lengthy personal interviews, and a comprehensive environmental assessment of homes and farms.

Preliminary results of our environmental assessments -- a far from complete list -- include the following. Of the entire sample, approximately 20% of the homes were built before 1900, 50% between 1900 and 1969, and about 30% since 1970. Methods of home heating included liquid propane, natural gas, wood, oil, electricity, and a small percentage use kerosene. A fairly large percentage of the sample stored chemicals such as insecticides, rodenticides, herbicides, fungicides, and fertilizers in their homes.

We have not yet begun to link the environmental data with health outcomes, but I'd like to share with you some of the health outcome results for those 65 and older, the elderly who make up 27% of our adult sample. Twenty-seven percent reported that they "usually have a cough," 17% reported that they "usually bring up phlegm" from their

chest, 26% have "had an attack of wheezing" that has made them short of breath, and over 28% have experienced "chest tightness." Twenty-six percent of the women and 16% of the men age 65 and older reported high levels of depressive symptoms.

We asked our study participants what they liked and what they didn't like about farming. Responses of those 65 and older about what they liked included: independence; flexible schedule; privacy; growing our own food; working together as a family. Perhaps the things they didn't like about farming are more relevant to our purpose today because they identify issues of concern and opportunities for intervention. They include: capital investment is large compared to return on investment; crop failures and bad financial times; dust and weed allergies; application of chemicals; stress; sub-zero temperatures; air pollution; uncertainty and uncontrollability of weather, prices, animal sickness; lack of financial security; increase in money needed to raise crops and dependency on chemicals. One elderly farmer said, "I enjoy it, but boy sometimes it's not too good!"

We asked participants if they wanted their children to farm, and if not, why not. Responses of those 65 and older included: better ways to make a living – too much depends on chance; can't afford it; hard to make a decent living from a small operation; too risky; no future, too stressful; pay not good enough, health hazards, long hours; the family size farm is no longer profitable; too expensive, too many chemicals used; unpredictable, unsafe, unrewarding.

The bubble that was the myth of rural tranquility with its idyllic setting, its clean air and water, its relaxing pace and lack of stress has been burst. What can be done to improve the environment and prevent and alleviate the health problems that come from

this rural reality? It is important to recognize the rural elderly as a growing segment of our population, one that in many cases is still part of the workforce, and in any case -- whether they are working for pay or not -- is still a very valuable source of knowledge, wisdom, and tradition in our society, a society which is ever more fast-paced and eager for quick fixes. Initiatives that aim to improve the environment and health of our rural elderly will do much to improve the environment and health of all Americans.